

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

RESONANT SYSTEMS, INC. d/b/a  
RevelHMI,

Plaintiff,

v.

SONY GROUP CORP. and SONY  
INTERACTIVE ENTERTAINMENT INC.,

Defendants.

Case No. 2:22-cv-00423-JRG-RSP

**JURY DEMANDED**

**JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT**

Pursuant to Local Patent Rule 4-3, and the Court’s Docket Control Order (Dkt. No. 24), Plaintiff Resonant Systems, Inc. d/b/a RevelHMI (“Resonant”) and Defendants Sony Group Corp. and Sony Interactive Entertainment Inc. (collectively, “Defendants”) (all together, the “parties”) respectfully submit the following Joint Claim Construction and Prehearing Statement.

**I. AGREED CLAIM CONSTRUCTIONS (P.R. 4-3(A)(1))**

The parties agree on the following claim constructions with respect to U.S. Patent Nos. 8,860,337 (“’337 Patent”), 9,369,081 (“’081 Patent”), and U.S. Patent No. 9,941,830 (“’830 Patent”).

<b>Claim Term</b>	<b>Agreed Construction</b>
Preamble of ’081 Patent, claim 1  Preambles of ’830 Patent, claims 1, 20	The preambles are limiting.
“a driving component that drives the moveable component in each of two opposite directions within the housing”  (’337 Patent, claim 2; ’081 Patent, claim 1)	Subject to 35 U.S.C. § 112 ¶ 6.  <b><u>Function:</u></b> driving the moveable component in each of two opposite directions within the housing (’337 patent, claim 2; ’081 patent, claim 1); driving the

Claim Term	Agreed Construction
“a driving component that drives the moveable component to oscillate within the housing”  ('830 Patent, claims 1, 20)	moveable component to oscillate within the housing ('830 patent, claims 1, 20)  <u><b>Structures:</b></u> one or more coils or electromagnets; and equivalents thereof

## II. DISPUTED CLAIM CONSTRUCTIONS (P.R. 4-3(A)(2))

The parties' proposed constructions of disputed terms are provided in the chart below. The parties' proposed constructions are also set forth in the accompanying Exhibit A, along with the intrinsic and extrinsic evidence on which the parties intend to rely.

Claim Term	Resonant's Proposed Construction	Defendants' Proposed Construction
Preamble of '337 Patent, claim 2	The preamble is not limiting.	The preamble is limiting.
“vibration module”  ('337 Patent, claim 2; '081 Patent, claim 1; '830 Patent, claims 1, 20)	No construction necessary; plain and ordinary meaning	“vibrating device”
“moveable component”  ('337 Patent, Claim 2; '081 Patent, Claims 1, 2, 5-7, 17; '830 Patent Claims 1, 2, 5-7, 17, 20)	Plain and ordinary meaning; not subject to 35 U.S.C. § 112 ¶ 6.  If subject to 35 U.S.C. § 112 ¶ 6, then:  <u><b>Function:</b></u> moving  <u><b>Structures:</b></u> a mass/weight or plunger; and equivalents thereof	Subject to 35 U.S.C. § 112 ¶ 6  <u><b>Function:</b></u> moving  <u><b>Structures:</b></u> a mass/weight or plunger and equivalents thereof
“a control component that controls supply of power from the power	Subject to 35 U.S.C. § 112 ¶ 6	Subject to 35 U.S.C. § 112 ¶ 6

Claim Term	Resonant's Proposed Construction	Defendants' Proposed Construction
<p>supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by user input received from the user-input features”</p> <p>(’337 Patent, claim 2; ’081 Patent, claim 1)</p> <p>“a control component that controls supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by one or more stored values”</p> <p>(’830 Patent, claims 1, 20)</p>	<p><b><u>Function:</u></b>  “controlling supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by user input received from user-input features” (’337 patent, claim 2; ’081 patent, claim 1); “controlling supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by one or more stored values” (’830 patent, claims 1, 20)</p> <p><b><u>Structures:</u></b>  oscillator circuit; microcontroller with internal or external memory; processor; CPU; microprocessor; and equivalents thereof</p> <p>[if an algorithm is required] Where the corresponding structure is a processor, CPU, or microprocessor, the processor / CPU / microprocessor is programmed with an algorithm comprising the following steps: (a)</p>	<p><b><u>Function:</u></b>  “controlling supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by user input received from user-input features” (’337 patent, claim 2; ’081 patent, claim 1); “controlling supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by one or more stored values” (’830 patent, claims 1, 20)</p> <p><b><u>Structures:</u></b>  an oscillator circuit, a microcontroller with internal or external memory, a processor, a CPU, or a microprocessor contained within the vibrating device where the microcontroller, processor, CPU, or microprocessor are programmed with an algorithm comprising the following steps: (a) set the mode and strength to [default values or] values representing selections</p>

<b>Claim Term</b>	<b>Resonant's Proposed Construction</b>	<b>Defendants' Proposed Construction</b>
	set the mode and strength to [default values or] values representing selections made by user input to the user input features; and (b) provide a corresponding output to the power supply so that the power supply provides a corresponding output to the driving component	made by user input to the user input features; and (b) provide a corresponding output to the power supply so that the power supply provides a corresponding output to the driving component and equivalents thereof
<p>“a primary oscillation frequency modulated by a modulating oscillation frequency”</p> <p>(’337 Patent, claim 3; ’081 Patent, claim 16; ’830 Patent, claim 16)</p>	No construction necessary; plain and ordinary meaning	“a primary oscillation frequency modulated by a modulating oscillation frequency to produce lowfrequency pulses of high-frequency vibration such as depicted in Fig. 22B”
<p>“a beat frequency”</p> <p>(’337 Patent, claim 3; ’081 Patent, claim 16; ’830 Patent, claim 16)</p>	No construction necessary; plain and ordinary meaning	“two driving frequencies combine to produce a lower frequency beat waveform such as depicted in Fig. 23”
<p>“an aperiodic oscillation waveform”</p> <p>(’337 Patent, claim 3; ’081 Patent, claim 16; ’830 Patent, claim 16)</p>	No construction necessary; plain and ordinary meaning	“a vibration waveform that does not repeat in time”
<p>“the one or more operational control outputs of the control component”</p> <p>(’081 Patent, claim 4; ’830 Patent, claim 4)</p>	Plain and ordinary meaning; not indefinite	Indefinite
<p>“a strength of vibration produced by the linear oscillation of the moveable component”</p>	No construction necessary; plain and ordinary meaning	“a value that corresponds to the amount of current

Claim Term	Resonant's Proposed Construction	Defendants' Proposed Construction
('081 Patent, claim 5; '830 Patent, claim 5)		applied to the driving component"
"claim 1" ('081 Patent, claim 4, '830 Patent, claim 4)	"claim 3"	Plain and ordinary meaning

### III. ANTICIPATED LENGTH OF TIME NEEDED FOR THE CLAIM CONSTRUCTION HEARING (P.R. 4-3(A)(3))

Resonant estimates that one hour will be needed for the claim construction hearing.

Defendants estimate that ninety minutes total will be needed for the claim construction hearing.

The parties agree that each side will be allocated half of the total time permitted for the hearing.

### IV. PROPOSED WITNESSES TO BE USED AT THE CLAIM CONSTRUCTION HEARING (P.R. 4-3(A)(4))

No party proposes to call witnesses at the claim construction hearing.

### V. OTHER ISSUES TO BE ADDRESSED PRIOR TO CLAIM CONSTRUCTION HEARING (P.R. 4-3(A)(5))

The parties are not currently aware of any issues that they would propose taking up at a prehearing conference prior to the claim construction hearing.

Dated: March 29, 2024

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**EXHIBIT A**

<b>Term</b>	<b>Plaintiff's Proposed Construction and Supporting Evidence</b>	<b>Defendants' Proposed Construction and Supporting Evidence</b>
Preamble of '337 Patent, claim 2	<p>The preamble is not limiting.</p> <p><b><u>Intrinsic Evidence:</u></b> '337 Patent, Claim 2.</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants' Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>Preamble is limiting.</p> <p><b><u>Intrinsic Evidence</u></b> '337 Patent, Claims 2-4.</p> <p>U.S. Provisional Application No. 61/179,109.</p> <p>'081 Patent, Claim 1 Preamble.</p> <p>'830 Patent, Claims 1, 20 Preamble.</p> <p><i>Samsung et al. v. Resonant Systems Inc.</i>, IPR2023-00992 at Paper 10 (Patent Owner Preliminary Response), p. 4 ("Patent Owner does not dispute that the claim preambles at issue here are limiting.")</p> <p><i>Samsung et al. v. Resonant Systems Inc.</i>, IPR2023-00993 at Paper 11 (Patent Owner Preliminary Response), p. 3 ("Patent Owner does not dispute, in the context of this proceeding, that the claim preambles at issue here are limiting.")</p> <p><i>Samsung et al. v. Resonant Systems Inc.</i>, IPR2023-01025 at Paper 11 (Patent Owner Preliminary Response), p. 5 ("Patent Owner does not dispute, in the context of this proceeding, that the claim preambles at issue here are limiting.")</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
		<p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b><u>Extrinsic Evidence</u></b></p>
<p>“vibration module”</p> <p>’337 Patent, claim 2; ’081 Patent, claim 1; ’830 Patent, claims 1, 20</p>	<p>No construction necessary; plain and ordinary meaning</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>’081 patent<sup>1</sup> at Abstract, 1:15-20, 1:24-3:3, 3:7-21, 3:25-4:9, 4:13-43, 15:18-34, Figs. 4A-4G, 5A-5B, 6, 7A-7C, 10-18, 24A-24B, 25 and specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants’ Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>“vibrating device”</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>’337 Patent, Claim 2, 1:14-20, 6:9-10, 6:50-53, 7:24-31, 7:50-57, 10:53-65, 11:4-28, 13:10-13, 13:42-51.</p> <p>’337 Patent File History (REVEL-SONY-00000031 – REVEL-SONY-00000206) at Office Action Dated 02/05/2014 (REVEL-SONY-00000081 – REVEL-SONY-00000086); Amendment Dated 05/19/2014 (REVEL-SONY-00000055 – REVEL-SONY-00000060).</p> <p>’081 Patent, Claim 1, 1:15-20, 6:9-10, 6:50-53, 7:24-31, 7:50-57, 10:53-65, 11:4-28, 13:10-13, 13:42-51.</p> <p>’081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-</p>

<sup>1</sup> Because the ’081 and ’830 patents share the same specification, all of RevelHMI’s citations are to portions of the ’081 patent unless otherwise specified. Thus, RevelHMI’s citations to the ’081 patent should be understood to encompass the corresponding portions of the ’830 patent.



Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
		<p>00000336 – REVEL-SONY-00000337).</p> <p>'830 Patent, Claims 1, 20; 1:16-21, 6:16-18, 6:60-62, 7:34-41, 7:60-67, 10:66-11:11, 11:17-41, 13:28-31, 13:60-14:2.</p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>U.S. Provisional Application No. 61/179,109.</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b>Extrinsic Evidence:</b></p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
<p>"a moveable component"</p> <p>('337 Patent, Claim 2; '081 Patent, Claims 1, 2, 5-7, 17; '830 Patent Claims 1, 2, 5-7, 17, 20)</p>	<p>Plain and ordinary meaning; not subject to 35 U.S.C. § 112 ¶ 6</p> <p>If subject to 35 U.S.C. § 112 ¶ 6, then:</p> <p><b><u>Function:</u></b> moving</p> <p><b><u>Structures:</u></b> a mass/weight or plunger; and equivalents thereof</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>'081 patent at Abstract, 15:18-34, Figs. 4A-4G, 6, 10-18, 24A-24B, 25, and specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants' Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><b><u>Function:</u></b> moving</p> <p><b><u>Structures:</u></b> a mass/weight or plunger and equivalents thereof</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>'337 Patent - Claim 2, Abstract, 3:10-13, 4:17-23, 4:49-57, 4:59-5:2, 5:5-45, Figs. 4A-G, 9:18-38, 9:42-52, 9:64-10:12, Figs. 10-14, 14:2-9, 14:19-22, Figs. 24A-B, Fig. 25, 14:49-52, 15:1-8.</p> <p>'337 Patent File History (REVEL-SONY-00000031 – REVEL-SONY-00000206) at Office Action Dated 02/05/2014 (REVEL-SONY-00000081 – REVEL-SONY-00000086); Amendment Dated 05/19/2014 (REVEL-SONY-00000055 – REVEL-SONY-00000060).</p> <p>'081 Patent - Claims 1-17; Abstract, 3:10-13, 4:17-23, 4:49-57, 4:59-5:2, 5:5-45, Figs. 4A-G, 9:18-38, 9:42-52, 9:64-10:12, Figs. 10-14, 14:2-9, 14:19-22, Figs. 24A-B, Fig. 25, 14:49-52, 15:1-8.</p> <p>'081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-00000336 – REVEL-SONY-00000337).</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
		<p>'830 Patent - Claims 1-20; Abstract, 3:15-18, 4:21-27, 4:54-62, 4:64-5:7, 5:11-52, Figs. 4A-G, 9:29-32, 9:53-64, 10:9-25, Figs. 10-14, 14:21-28, 14:38-42, Figs. 24A-B, Fig. 25, 15:2-5, 15:22-29.</p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>U.S. Provisional Application No. 61/179,109.</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b><u>Extrinsic Evidence</u></b></p>
<p>“a control component that controls supply of power from the power supply to the driving component to cause the moveable component to oscillate at a</p>	<p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><b><u>Function:</u></b> controlling supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by user input received from user-input features” ('337 patent, claim 2; '081 patent, claim 1); “controlling supply of power</p>	<p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><b><u>Function:</u></b> controlling supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by user input received from user-input features” ('337 Patent, claim 2; '081 Patent, claim 1); “controlling supply of power</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
<p>frequency and an amplitude specified by user input received from the user-input features”</p> <p>(’337 Patent, claim 2; ’081 Patent, claim 1)</p> <p>“a control component that controls supply of power from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by one or more stored values”</p> <p>(’830 Patent, claims 1, 20)</p>	<p>from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by one or more stored values” (’830 patent, claims 1, 20)</p> <p><b><u>Structures:</u></b> oscillator circuit; microcontroller with internal or external memory; processor; CPU; microprocessor; and equivalents thereof</p> <p>[if an algorithm is required] Where the corresponding structure is a processor, CPU, or microprocessor, the processor / CPU / microprocessor is programmed with an algorithm comprising the following steps: (a) set the mode and strength to [default values or] values representing selections made by user input to the user input features; and (b) provide a corresponding output to the power supply so that the power supply provides a corresponding output to the driving component</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>’081 patent at Abstract, 3:45-49, 5:66-8:30, 7:10-24, 8:10-20, 10:53-13:51, 14:60-64, 15:18-34, Figs. 6, 7A-7C, 8, 9, 19-23 and specification text corresponding to those Figures; ’830 patent at Abstract, 7:20-34, 8:20-30, 15:18-34, Figs. 6, 7A-7C, 8, 9, 19-23 and specification text corresponding to those Figures</p>	<p>from the power supply to the driving component to cause the moveable component to oscillate at a frequency and an amplitude specified by one or more stored values” (’830 Patent, claims 1, 20)</p> <p><b><u>Structures:</u></b> an oscillator circuit, a microcontroller with internal or external memory, a processor, a CPU, or a microprocessor contained within the vibrating device where the microcontroller, processor, CPU, or microprocessor are programmed with an algorithm comprising the following steps: (a) set the mode and strength to [default values or] values representing selections made by user input to the user input features; and (b) provide a corresponding output to the power supply so that the power supply provides a corresponding output to the driving component and equivalents thereof</p> <p><b><u>Intrinsic Evidence</u></b> ’337 Patent at Claim 2, Abstract, 3:45-49, 5:66-8:30, 7:10-24, 8:10-20, 10:53-13:51, 14:60-64, Figs. 6, 7A-7C, 8, 9, 19-23 and specification text corresponding to those Figures</p> <p>’337 Patent File History (REVEL-SONY-00000031 – REVEL-SONY-00000206) at Office Action Dated 02/05/2014 (REVEL-SONY-00000081 – REVEL-SONY-00000086); Amendment Dated 05/19/2014 (REVEL-SONY-00000055 – REVEL-SONY-00000060).</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
	<p><b><u>Extrinsic Evidence:</u></b>  Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants);  Defendants' Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>'081 Patent at Claim 1, Abstract, 3:45-49, 5:66-8:30, 7:10-24, 8:10-20, 10:53-13:51, 14:60-64, Figs. 6, 7A-7C, 8, 9, 19-23 and specification text corresponding to those Figures</p> <p>'081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-00000336 – REVEL-SONY-00000337).</p> <p>'830 Patent at Claims 1, 20, Abstract, 3:49-53, 6:6-8:40, 7:20-34, 8:20-30, 10:66-14:2, 15:14-17, Figs. 6, 7A-7C, 8, 9, 19-23 and specification text corresponding to those Figures</p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>U.S. Provisional Application No. 61/179,109.</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
		<p><b><u>Extrinsic Evidence</u></b>            '830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Response Dated 10/23/2017 (REVEL-SONY-00000518 – REVEL-SONY-00000519)</p>
<p>“a primary oscillation frequency modulated by a modulating oscillation frequency”</p> <p>(’337 Patent, claim 3; ’081 Patent, claim 16; ’830 Patent, claim 16)</p>	<p>No construction necessary; plain and ordinary meaning</p> <p><b><u>Intrinsic Evidence:</u></b></p> <p>’081 patent at Abstract, 15:18-34, 1:15-20, 1:24-3:3, 3:7-21, 3:25-4:9, 4:13-43, 15:18-34, Figs. 3, 7A-7C, 8, 9, 19-21, 22A-22B, 23 and specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b>            Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants’ Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>“a primary oscillation frequency modulated by a modulating oscillation frequency to produce low-frequency pulses of high-frequency vibration such as depicted in Fig. 22B”</p> <p><b><u>Intrinsic Evidence</u></b>            ’337 Patent at 13:23-28, Fig. 22B</p> <p>’337 Patent File History (REVEL-SONY-00000031 – REVEL-SONY-00000206) at Office Action Dated 02/05/2014 (REVEL-SONY-00000081 – REVEL-SONY-00000086); Amendment Dated 05/19/2014 (REVEL-SONY-00000055 – REVEL-SONY-00000060).</p> <p>’081 Patent at 13:23-28, Fig. 22B</p> <p>’081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-00000336 – REVEL-SONY-00000337).</p> <p>’830 Patent at 13:41-46, Fig. 22B</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
		<p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b><u>Extrinsic Evidence</u></b></p>
<p>“a beat frequency”</p> <p>(’337 Patent, claim 3; ’081 Patent, claim 16; ’830 Patent, claim 16)</p>	<p>No construction necessary; plain and ordinary meaning</p> <p><b><u>Intrinsic Evidence:</u></b></p> <p>’081 patent at Abstract, 15:18-34, 1:15-20, 1:24-3:3, 3:7-21, 3:25-4:9, 4:13-43, 15:18-34, Figs. 3, 7A-7C, 8, 9, 19-21, 22A-22B, 23 and specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b></p> <p>Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants’ Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>“two driving frequencies combine to produce a lower frequency beat waveform such as depicted in Fig. 23”</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>’337 Patent at 13:29-33, Fig. 23</p> <p>’337 Patent File History (REVEL-SONY-00000031 – REVEL-SONY-00000206) at Office Action Dated 02/05/2014 (REVEL-SONY-00000081 – REVEL-SONY-00000086); Amendment Dated 05/19/2014 (REVEL-SONY-00000055 – REVEL-SONY-00000060).</p> <p>’081 Patent at 13:29-33, Fig. 23</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
		<p>'081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-00000336 – REVEL-SONY-00000337).</p> <p>'830 Patent at 13:46-52, Fig. 23</p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b><u>Extrinsic Evidence</u></b></p>
<p>“an aperiodic oscillation waveform”</p> <p>(’337 Patent, claim 3; ’081 Patent, claim 16; ’830 Patent, claim 16)</p>	<p>No construction necessary; plain and ordinary meaning</p> <p><b><u>Intrinsic Evidence:</u></b></p> <p>’081 patent at Abstract, 15:18-34, 1:15-20, 1:24-3:3, 3:7-21, 3:25-4:9, 4:13-43, 15:18-34, Figs. 3, 7A-7C, 8, 9, 19-21, 22A-22B, 23 and</p>	<p>“a vibration waveform that does not repeat in time”</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>’337 Patent at 13:34-41.</p> <p>’337 Patent File History (REVEL-SONY-00000031 – REVEL-SONY-00000206) at Office Action Dated 02/05/2014 (REVEL-SONY-</p>



Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
	<p>specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants' Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>00000081 – REVEL-SONY-00000086); Amendment Dated 05/19/2014 (REVEL-SONY-00000055 – REVEL-SONY-00000060).</p> <p>'081 Patent at 13:34-41.</p> <p>'081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-00000336 – REVEL-SONY-00000337).</p> <p>'830 Patent at 13:52-59.</p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b><u>Extrinsic Evidence</u></b></p>
"the one or more operational control outputs of	Plain and ordinary meaning; Not Indefinite.	<p>Indefinite</p> <p><b><u>Intrinsic Evidence</u></b></p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
<p>the control component”</p> <p>’081 Patent, claim 4; ’830 Patent, claim 4</p>	<p><b><u>Intrinsic Evidence:</u></b></p> <p>’081 Patent at 6:24-42; Abstract, claims 1-4, Figs. 6, 7A-7C, 8, 9, 19-21, 22A-22B, 23 and specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants); Defendants’ Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>’081 Patent, claims 1, 4.</p> <p>’830 Patent, claims 1, 4.</p> <p><b><u>Extrinsic Evidence</u></b></p>
<p>“a strength of vibration produced by the linear oscillation of the moveable component”</p> <p>(’081 Patent, claim 5; ’830 Patent, claim 5)</p>	<p>No construction necessary; plain and ordinary meaning</p> <p><b><u>Intrinsic Evidence:</u></b></p> <p>’337 Patent at 6:21-43; Abstract, claims 1-4, Figs. 6, 7A-7C, 8, 9, 19-21, 22A-22B, 23 and specification text corresponding to those Figures</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants);</p>	<p>“a value that corresponds to the amount of current applied to the driving component”</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>’081 Patent at claim 5, 6:21-24, 6:36-42, Fig. 6, 6:50-61, Fig. 7A, 8:12-20, Fig. 7C.</p> <p>’081 Patent File History (REVEL-SONY-00000238 – REVEL-SONY-00000367) at Office Action Dated 11/25/2015 (REVEL-SONY-00000315 – REVEL-SONY-00000319); Response Dated 01/16/2016 (REVEL-SONY-</p>

Term	Plaintiff's Proposed Construction and Supporting Evidence	Defendants' Proposed Construction and Supporting Evidence
	<p>Defendants' Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p>	<p>00000336 – REVEL-SONY-00000337).</p> <p>'830 Patent at claim 5, 6:29-33, 6:44-51, Fig. 6, 6:60-7:3, Fig. 7A, 8:22-30, Fig. 7C.</p> <p>'830 Patent File History (REVEL-SONY-00000399 – REVEL-SONY-00000546) at Office Action Dated 06/22/2017 (REVEL-SONY-00000500 – REVEL-SONY-00000505); Response Dated 10/23/2017 (REVEL-SONY-00000516 – REVEL-SONY-00000519); Notice of Allowability (REVEL-SONY-00000530 – REVEL-SONY-00000532)</p> <p>U.S. Provisional Application No. 61/179,109.</p> <p>Any other filings in IPR2023-00992, IPR2023-00993, IPR2023-01025, IPR2024-00568, IPR2024-00569, and IPR2024-00570.</p> <p><b><u>Extrinsic Evidence</u></b></p>
<p>"claim 1"</p> <p>('081 patent, claim 4, '830 patent, claim 4)</p>	<p>"claim 3"</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>'081 patent at claims 1-6</p> <p>'830 patent at claims 1-6</p> <p><b><u>Extrinsic Evidence:</u></b> Expert testimony of R. Jacob Baker (disclosure of which was served to counsel for Defendants);</p>	<p>Plain and ordinary meaning</p> <p><b><u>Intrinsic Evidence</u></b></p> <p>'081 Patent claim 4.</p> <p>'830 Patent claim 4.</p> <p><b><u>Extrinsic Evidence</u></b></p>

<b>Term</b>	<b>Plaintiff's Proposed Construction and Supporting Evidence</b>	<b>Defendants' Proposed Construction and Supporting Evidence</b>
	Defendants' Petitions and any other filings in IPR2024-00568, IPR2024-00569, and IPR2024-00570.	

**CERTIFICATE OF SERVICE**

I hereby certify that on March 29, 2024, I served the foregoing document via electronic service on all counsel of record.

/s/ Kristopher Davis  
Kristopher Davis